



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/706,438

11/12/2003

Torsten Partsch

2003P52601US/I331.102.101

7153

7590

04/05/2006

Dicke, Billig & Czaja, PLLC
Fifth Street Towers
Suite 2250
100 South Fifth Street
Minneapolis, MN 55402

EXAMINER

MCFADDEN, MICHAEL B

ART UNIT

PAPER NUMBER

2188

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--|---|--|
| Office Action Summary | Application No. 10/706,438 | Applicant(s) PARTSCH, TORSTEN | |
| | Examiner Michael B. McFadden | Art Unit 2188 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/12/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The instant application having Application No. 10/706,438 has a total of 38 claims pending in the application, there are 5 independent claims and 33 dependent claims, all of which are ready for examination by the examiner.

I. INFORMATION CONCERNING OATH/DECLARATION

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. ' 1.63.

III. INFORMATION CONCERNING DRAWINGS

Drawings

3. The applicant's drawings submitted 12 November 2003 are acceptable for examination purposes.

IV. ACKNOWLEDGEMENT OF REFERENCES CITED BY APPLICANT

Information Disclosure Statement

4. As required by M.P.E.P. ' 609 (C), the applicant's submission of the Information Disclosure Statement dated 12 November 2003 is acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending. As required by M.P.E.P. ' 609 C(2), a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant office action.

VI. REJECTIONS NOT BASED ON PRIOR ART

Claim Rejections - 35 USC ' 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-3, 8, 10, 12, 18, 25, and 26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of a "column address strobe latency signal" is claimed. The description of the column address strobe latency signal and its use are unclear. Further explanation is required.

VII. REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC ' 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 17, 18, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Usami (US Patent No. 6,205,516).

Art Unit: 2188

9. **Regarding Claims 1 - 3, 17, 18, and 31**, Usami discloses a random access memory, comprising: an array of memory cells; a memory configured to receive data from the array of memory cells; a bypass circuit configured to receive the data from the array of memory cells and to bypass the memory; and a circuit configured to select between receiving the data from the memory to provide first output signals and receiving the data from the bypass circuit to provide second output signals based on a column address strobe latency signal. Also, the random access memory, wherein the circuit is configured to receive the data from the bypass circuit and provide the second output signals if the column address strobe latency signal indicates a column address strobe latency value of one. Lastly, when the random access memory, wherein the circuit is configured to receive the data from the bypass circuit and provide the second output signals if the column address strobe latency signal indicates a column address strobe latency value of one. **(See Figure 2 and Figure 4)**

Usami discloses a programmable SDRAM. An SDRAM is inherently created from a memory array, a memory configured to receive data from the array, a bypass circuit, and a circuit that will select the programmed mode. Figure 4 shows that depending on the contents of the CAS Latency bits A4, A5, and A6 the CL (CAS Latency) will vary accordingly as described in Claims 2 and 3.

Claim Rejections - 35 USC ' 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2188

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4-16, 19-30 and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami (US Patent No. 6,205,516).

12. **Regarding Claims 4-11, 19-21, 25-30, and 33-38**, Usami discloses circuits configured to receive first rise and fall signals to serialize the data following a read command initiated by an edge of a clock cycle. **(See Figures 2 and 4.)**

A programmable SDRAM must inherently contain circuit means for serializing data as initiated by an edge of a clock cycle. The Examiner takes official notice that any combination of clock edges can be combined to provide the instruction to receive data. The motivation for doing so would be to increase system speed for read and write commands. Therefore it would be obvious to use any combination of clock edges to provide the instruction to receive data so that the system can be configured to increase system speed for read and write commands to obtain the invention claimed.

13. **Regarding Claims 12-16, 22-24, and 32**, Usami fails to disclose a tri-state output, a first in/first out memory, a low power synchronous dynamic random access memory, a double data rate-I synchronous dynamic random access memory, a double data rate-II synchronous dynamic access memory, a data delay circuit, and an off chip driver.

Art Unit: 2188

However, it would have been obvious for a person of ordinary skill in the art to combine these limitations with the random access memory of Usami.

The motivation for doing so would have been that using tri-states, FIFO memory, low power SDRAM, DDR1 SDRAM, DDR2 SDRAM, delay circuits, and off chip drivers in random access memory devices is an efficient way to utilize system resources along with expediting memory requests.

Therefore it would have been obvious for a person of ordinary skill in the art to combine the use of tri-states, FIFO memory, low power SDRAM, DDR1 SDRAM, DDR2 SDRAM, delay circuits, or off chip drivers with the random access memory of Usami, for the benefit of efficiently utilizing system resources along with expediting memory requests to obtain the invention claimed.

VIII. RELEVANT ART CITED BY THE EXAMINER

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

The following references teach a programmable SDRAM:

Ware et al. (US Patent No. 6,226,757)

Suyama et al. (US Patent No. 6,438,061)

Jeong (US Patent No. 6,151,270)

IX. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

15. The following is a summary of the treatment and status of all claims in the application as recommended by M.P.E.P. ' 707.07(i):

a(4). CLAIMS REJECTED IN THE APPLICATION

16. Per the instant office action, claims 1-38 have received a first action on the merits and are subject of a first action non-final.

b. DIRECTION OF FUTURE CORRESPONDENCES

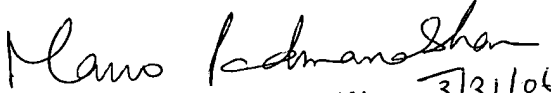
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. McFadden whose telephone number is (571)272-8013. The examiner can normally be reached on Monday-Friday 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Manorama Padmanabhan can be reached on (571)272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

IMPORTANT NOTE

Art Unit: 2188

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MANO PADMANABHAN 3/31/06
SUPERVISORY PATENT EXAMINER

MBM
03/24/2006